

AMENDMENTS TO THE CLAIMS

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims in the application.

Please amend claims 1, 9, 10 as follows:

1 1. (Currently Amended) ~~An apparatus controlling a digital transport stream on a~~ A digital
2 settop box for controlling a digital transport stream, ~~the apparatus comprising:~~

3 a data receiving unit being connected to a digital subscriber line port and an Ethernet port,
4 said data receiving unit receiving signals from at least one selected from among an asynchronous
5 transfer mode network and an Internet protocol network, the signals corresponding to at least one
6 selected from among asynchronous transfer mode digital broadcasting, asynchronous transfer mode
7 video on demand, Internet protocol mode digital broadcasting, and Internet protocol video on
8 demand, said data receiving unit ~~identifying~~ making an identification of the received signals by
9 determining when the received signals are asynchronous transfer mode data, when the received
10 signals are Internet protocol over asynchronous transfer mode data, and when the received signals
11 are Internet protocol data, said data receiving unit transmitting information corresponding to the
12 received signals in dependence upon the ~~identifying~~ identification;

13 an extracting unit determining when the transmitted information corresponds to a portion of
14 a Moving Picture Experts Group transport stream and when the transmitted information corresponds
15 to Internet protocol packet data, said extracting unit extracting valid cells from asynchronous transfer
16 mode cells when the transmitted information includes asynchronous transfer mode cells;

17 a transport stream forming unit receiving the extracted valid cells, modifying the extracted
18 valid cells to form modified cells[[,]] ~~the modifying including by~~ removing a predetermined byte of
19 head information and overhead information from the extracted valid cells, and by forming[[the]]
20 one Moving Picture Experts Group transport stream by re_assembling four [[the]] modified cells;
21 [[and]]

22 a data transforming unit transforming the Moving Picture Experts Group transport stream
23 transmitted from said transport stream forming unit to be displayed by a video display[[.]]; and
24 a processing unit reassembling asynchronous transfer mode cells, transmitting received data
25 to said data transforming unit.

1 2. (Original) The apparatus of claim 1, with the Moving Picture Experts Group transport
2 stream corresponding to an asynchronous transfer mode Moving Picture Experts Group transport
3 stream.

1 3. (Original) The apparatus of claim 1, with said data receiving unit comprising:
2 a digital subscriber line receiving unit receiving the asynchronous transfer mode data and the
3 Internet protocol data through a digital subscriber line interface; and
4 an Ethernet receiving unit receiving the Internet protocol data through an Ethernet interface.

1 4. (Original) The apparatus of claim 1, with said data transforming unit comprising:
2 a decoding unit decoding the Moving Picture Experts Group transport stream transmitted

3 from said transport stream forming unit; and

4 an encoding unit encoding the Moving Picture Experts Group transport stream decoded by
5 said decoding unit to be displayed by the video display.

1 5. (Original) The apparatus of claim 4, further comprising:

2 a processing unit receiving the Internet protocol over asynchronous transfer mode data from
3 said digital subscriber line receiving unit, said processing unit receiving the Internet protocol data
4 from said digital subscriber line receiving unit, said processing unit extracting valid cells from the
5 Internet protocol over asynchronous transfer mode data and the Internet protocol data received from
6 said digital subscriber line;

7 said processing unit receiving the Internet protocol data from said Ethernet receiving unit and
8 extracting valid cells from the Internet protocol data received from said Ethernet receiving unit.

1 6. (Original) The apparatus of claim 5, further comprising:

2 a control unit determining when the valid cells extracted from the asynchronous transfer
3 mode cells by said extracting unit correspond to at least one selected from among the Moving Picture
4 Experts Group transport stream and general Internet data, determining when the valid cells extracted
5 from the Internet protocol over asynchronous transfer mode data by said processing unit correspond
6 to at least one selected from among the Moving Picture Experts Group transport stream and the
7 general Internet data, and determining when the valid cells extracted from the Internet protocol data
8 by said processing unit correspond to at least one selected from among the Moving Picture Experts

9 Group transport stream and the general Internet data, said control unit re-assembling the cells in
10 dependence upon the determining, said control unit transmitting the Moving Picture Experts Group
11 transport stream to said decoding unit, and said control unit transmitting the general Internet data to
12 said encoding unit.

1 7. (Original) The apparatus of claim 6, with the Moving Picture Experts Group transport
2 stream corresponding to an asynchronous transfer mode Moving Picture Experts Group transport
3 stream.

1 8. (Original) The apparatus of claim 7, with said data receiving unit comprising:
2 a digital subscriber line receiving unit receiving the asynchronous transfer mode data and the
3 Internet protocol data through a digital subscriber line interface; and
4 an Ethernet receiving unit receiving the Internet protocol data through an Ethernet interface.

1 9. (Currently Amended) The apparatus of claim 1, further comprising:
2 said processing unit receiving the Internet protocol over asynchronous transfer mode data
3 from said digital subscriber line receiving unit, said processing unit receiving the Internet protocol
4 data from said digital subscriber line receiving unit, said processing unit extracting valid cells from
5 the Internet protocol over asynchronous transfer mode data and the Internet protocol data received
6 from said digital subscriber line;
7 said processing unit receiving the Internet protocol data from said Ethernet receiving unit and

8 extracting valid cells from the Internet protocol data received from said Ethernet receiving unit[[]];

9 and

10 said processing unit reassembling asynchronous transfer mode cells, transmitting received
11 data to said decoding unit of said data transforming unit when incoming data is Moving Picture
12 Experts Group stream, and transmitting and routing reassembled packets to said decoding unit of
13 said data transforming unit when incoming data is general Internet data.

1 10. (Currently Amended) An apparatus, comprising:

2 a data receiving unit being connected to at least two ports, said data receiving unit receiving
3 signals from at least one selected from among an asynchronous transfer mode network and an
4 Internet protocol network, the signals corresponding to at least one selected from among
5 asynchronous transfer mode digital broadcasting, asynchronous transfer mode video on demand,
6 Internet protocol mode digital broadcasting, and Internet protocol video on demand, said data
7 receiving unit identifying the received signals by determining when the received signals are
8 asynchronous transfer mode data, when the received signals are Internet protocol over asynchronous
9 transfer mode data, and when the received signals are Internet protocol data, said data receiving unit
10 transmitting information corresponding to the received signals in dependence upon the identifying;

11 an extracting unit determining when the transmitted information corresponds to a portion of
12 a Moving Picture Experts Group transport stream and when the transmitted information corresponds
13 to Internet protocol packet data, said extracting unit extracting valid cells from asynchronous transfer
14 mode cells when the transmitted information includes asynchronous transfer mode cells; and

15 a transport stream forming unit receiving the extracted valid cells, modifying the extracted
16 valid cells to form modified cells, the modifying including removing predetermined information
17 from the extracted valid cells, forming the Moving Picture Experts Group transport stream by
18 ~~re_assembling~~ reassembling the modified cells, and outputting video data to be transformed and then
19 displayed by a video display.

1 11. (Original) The apparatus of claim 10, the predetermined information including a
2 predetermined byte of head information and overhead information.

1 12. (Original) The apparatus of claim 10, with the at least two ports including a digital
2 subscriber line port and an Ethernet port.

1 13. (Original) The apparatus of claim 12, with said data receiving unit comprising:
2 a digital subscriber line receiving unit receiving the asynchronous transfer mode data and the
3 Internet protocol data through a digital subscriber line interface; and
4 an Ethernet receiving unit receiving the Internet protocol data through an Ethernet interface.

1 14. (Original) The apparatus of claim 13, further comprising:
2 a data transforming unit performing transforming after said transport stream forming unit
3 outputs the video data, said data transforming unit comprising:
4 a decoding unit decoding the Moving Picture Experts Group transport stream transmitted

5 from said transport stream forming unit; and

6 an encoding unit encoding the Moving Picture Experts Group transport stream decoded by
7 said decoding unit to be displayed by the video display.

1 15. (Original) The apparatus of claim 14, further comprising:

2 a processing unit receiving the Internet protocol over asynchronous transfer mode data from
3 said digital subscriber line receiving unit, said processing unit receiving the Internet protocol data
4 from said digital subscriber line receiving unit, said processing unit extracting valid cells from the
5 Internet protocol over asynchronous transfer mode data and the Internet protocol data received from
6 said digital subscriber line;

7 said processing unit receiving the Internet protocol data from said Ethernet receiving unit and
8 extracting valid cells from the Internet protocol data received from said Ethernet receiving unit.

1 16. (Original) The apparatus of claim 15, further comprising:

2 a control unit determining when the valid cells extracted from the asynchronous transfer
3 mode cells by said extracting unit correspond to at least one selected from among the Moving Picture
4 Experts Group stream and general Internet data, determining when the valid cells extracted from the
5 Internet protocol over asynchronous transfer mode data by said processing unit correspond to at least
6 one selected from among the Moving Picture Experts Group stream and the general Internet data,
7 and determining when the valid cells extracted from the Internet protocol data by said processing unit
8 correspond to at least one selected from among the Moving Picture Experts Group stream and the

9 general Internet data, said control unit re-assembling the cells in dependence upon the determining,
10 said control unit transmitting the Moving Picture Experts Group stream to said decoding unit, and
11 said control unit transmitting the general Internet data to said encoding unit.

1 17. (Original) The apparatus of claim 10, further comprising:

2 a data transforming unit performing transforming after said transport stream forming unit
3 outputs the video data, said data transforming unit comprising:

4 a decoding unit decoding the Moving Picture Experts Group transport stream transmitted
5 from said transport stream forming unit; and

6 an encoding unit encoding the Moving Picture Experts Group transport stream decoded by
7 said decoding unit to be displayed by the video display.